

elements is formed from rubber-modified polypropylene.

elements is formed from rubber modified polypropylene.

net of hinge elements are formed from polypropylene.

of hinge elements are formed from polyethylene.

## REMARKS

requests reconsideration of each of the claims as amended.

the Examiner indicated that the December 10 action was a non-final office action. Applicant is therefore submitting this response pursuant to 37 C.F.R. § 1.111.

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, the Office Action asserted that the application only specifies how to make hinge elements of a plastic material which is identical to one of the plastics materials of the panel rather than from a different plastics material. In response to this rejection, The Office Action

is directed to page 4, lines 4-20 of the originally-filed specification. This portion of the specification clearly and unambiguously states that that the net is formed from a rubber-modified polypropylene, while the panels are formed from a copolymer polypropylene with a higher melt index than the rubber-modified polypropylene of the net. The fact that the plastics material forming the net has a different melt index than the plastics material forming the panels unambiguously shows that the net and the panels are formed from different plastics materials. Applicant therefore respectfully submits that this rejection is overcome.

The Office Action rejected several claims under 35 U.S.C. § 112, second paragraph as being indefinite due to a lack of antecedent basis in claims 1 and 9. In response to these rejections, Applicant has amended these claims to recite “a box” instead of “the box.”

The Office Action rejected claims 1-3, 5-9, 11-14, 16 and 17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,445,052, issued to Lewallen. Claims 1-3, 6, 8, 9 and 12 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,896,787, issued to Delamour. Claims 1-3, 7-9 and 11-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,829,595, issued to Brown. Several of the claims were also rejected under 35 U.S.C. § 103 as being obvious over the Brown, Delamour and Lewallen references in view of various pieces of prior art.

In response to the Office Action’s rejections, claims 1 and 9 have been amended to describe a net of hinge elements of a first plastics material and a plurality of panels of a second plastics material, with the panels being located in spaces between and fused to surrounding the surrounding hinge elements of the net.

Applicant submits that none of the prior art cited by the Office Action discloses the invention as recited in the claims. For example, the Lewallen reference requires a continuous sheet of material, made of a material such as polypropylene, be used to form the hinge elements and therefore does not disclose a net of hinge elements with a plurality of panels located within the spaces of the net of hinge elements. In the case of the Brown reference, the hinge elements are made from the same material as the panels, and the Brown reference does not disclose a net of interconnected hinge elements. Similarly, the Delamour reference does not disclose a net of interconnected hinge elements, instead using separate hinge elements. For all of these reasons, Applicant submits that the rejected claims are not anticipated by the cited prior art. For the same reasons, Applicant submits that the rejected claims are not obvious of the prior art.<sup>1</sup>

Applicant also submits that the invention described in the amended claims provides several advantages that are not taught, disclosed, or even suggested by the cited prior art. For example, a box blank constructed according to the present invention is very simple and economical to manufacture. By having the net of hinge elements formed by a first injection molding process and panels formed by a second injection molding process, only two molding steps are required, improving the production process. Additionally, the net in the second mold is a very simple process, as the hinge elements are all joined together. Furthermore, the first plastics material is located only in the hinge regions where the material

---

<sup>1</sup> Applicant notes that the office action cited U.S. Patent No. 5,384,381, issued to Roe et al, in the rejections based upon 35 U.S.C. § 103(a). This reference has a filing date of October 9, 1997, five months after the foreign priority date of the present application. Applicant therefore submits that the Roe et al. reference does not constitute prior art.

is required. Also, because all of the hinge elements are joined together, no gaps are formed around the base of the container. For all of these reasons, Applicant submits that the claims are allowable over the cited prior art.

Applicant therefore submits that all outstanding rejections have been overcome by the foregoing amendments and remarks, and that each of currently pending claims 1-17 are now in condition for allowance. Therefore, reconsideration and favorable action is hereby requested.

A fee of \$205.00 for a two month extension of time is due with this reply. The Commissioner is hereby authorized to charge this payment, in addition to any deficiency to Deposit Account No. 06-1450 of Foley & Lardner, duplicate copy attached.

Respectfully submitted,

Date: May 12, 2003

Paul E. Schaafsma  
Paul E. Schaafsma  
Registration No. 32,664

Marshall J. Brown  
Registration No. 44,566

FOLEY & LARDNER  
One IBM Plaza, Suite 3300  
330 North Wabash Avenue  
Chicago, IL 60611-3608  
Telephone: (312) 832-4500



**RECEIVED**  
MAY 29 2003  
TECHNOLOGY CENTER R3700

Patent  
Attorney Docket No. 029539/0101

**APPENDIX - AMENDED CLAIMS**

1. (Three Times Amended) A [unitary] box blank formed from a plastics material and comprising a [plurality] net of hinge elements of a first plastics material and [connecting and fused to] a plurality of panels of a second plastic material for forming sides of a [the] box, the panels being located in spaces between surrounding hinge elements of the net and fused to the surrounding hinge elements [hinge elements being formed from a different plastics material than the panels].

2. (Once Amended) A blank as claimed in claim 1 wherein the net of hinge elements [are] is formed from a first plastics material having a greater toughness but less rigidity than the second plastics material forming the panels.

3. (Once Amended) A blank as claimed in claim 1 wherein the net of hinge elements and panels are formed from plastics materials belonging to the same family of compounds.

4. (Once Amended) A blank as claimed in claim 1 wherein the net of hinge elements is [are] formed from rubber-modified polypropylene.

6. (Once Amended) A blank as claimed in claim 1 wherein the net of hinge elements is [are] formed from a plastics material having a lower melt index than the plastics material from which the panels are formed.

9. (Three Times Amended) A [unitary] box blank comprising a plurality of panels connected by and fused to a net of hinge elements, the panels including structural panels for forming the sides of [the] a box and load bearing panels, the load bearing panels being connected to the structural panels by hinge elements formed not perpendicular to the intended

direction of load support provided by the load bearing panels, the panels and the net of hinge elements being formed from plastics.

10. (Once Amended) A blank as claimed in claim 9 wherein the net of hinge elements is [are] formed from rubber-modified polypropylene.

15. (Once Amended) The box blank of claim 14, wherein the net of hinge elements [are] is formed from rubber modified polypropylene.

16. (Once Amended) The box blank of claim 9, wherein the panels and the net of hinge elements are formed from polypropylene.

17. (Once Amended) The box blank of claim 9, wherein the panels and the net of hinge elements are formed from polyethylene.